

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method of transporting a message from a sending application to a receiving application, across a messaging landscape in a collaborative network, the method comprising:

defining an application message having a structured application message header, the structured message header being defined in accordance with a message class of the application message determinative of content and configuration of the message header and in accordance with a messaging protocol of a business application of a collaborative business enterprise, the structured message header comprising one or more components defined by the protocol and based on the message class with each of the one or more components relating to a corresponding set of attributes of the message, at least one of the one or more components of the structured header including information related to:

a processing mode for the message, the processing mode having one of a multiple of values indicative of whether a reply responsive to the application message is to be transmitted to the sending application upon processing of the application message by the receiving application,

a modifiable hop-list to record the identity of the intermediate components through which the application message passes en route to the receiving application, and security for components of the message;

sending the message according to the protocol, from the sending application; and receiving, at the receiving application, the message;

wherein the message class having one of multiple possible values including: a first value representative of an application-message class associated with application messages that cause specified operations to be performed at the receiving application, a second value representative of an application-response class associated with messages responsive to the application messages of

the application-message class, a third value representative of an application-error class associated with error messages indicative of errors occurring at the receiving application processing the application messages and a fourth value representative of a system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application.

2. (Original) A method in accordance with claim 1, wherein the method further comprises:

defining the message to include a message body, wherein the message body is defined in accordance with the protocol, the message body comprises at least one component from a second set of components defined by the protocol, and the protocol defines the second set of components to comprise:

a fault message component representing an error occurring at a messaging peer that generated the error.

3. (Original) A method in accordance with claim 2, wherein the fault message is defined to represent at least one error from a set of errors and the protocol defines the set of errors to comprise:

errors processing a message;  
errors parsing a message; and  
errors rendering a message.

4. (Original) A method in accordance with claim 1, wherein the security for components of the message is defined to comprise:

information related to a signature of the message; and  
information related to a signature of a payload of the message, if the message includes the payload.

5. (Cancelled)

6. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Previously presented) The method of claim 1 wherein the messaging protocol of the business application to manage and control the business enterprise is different from standard network communications protocols.

14. (Previously presented) The method of claim 1 wherein the structured application message header comprises:

a structured application message header specified using XML syntax.

15. (Previously presented) The method of claim 1 wherein the structured application message header is specified in a designated header section of a Simple Object Access Protocol (SOAP) message.

16. (Previously presented) The method of claim 1 wherein the application-response class associated with messages responsive to the application messages of the application-message class is associated with messages comprising return values responsive to respective computations performed by the receiving application in response to requests in the application messages received from the sending application.

17. (New) A system to transport a message from a sending application to a receiving application across a messaging landscape in a collaborative network, the system comprising:  
at least one processor connected to the network; and

at least one storage device coupled to the at least one processor, the at least one storage device storing computer instructions that, when executed on the at least one processor, cause the at least one processor to:

define an application message having a structured application message header, the structured message header being defined in accordance with a message class of the application message determinative of content and configuration of the message header and in accordance with a messaging protocol of a business application of a collaborative business enterprise, the structured message header comprising one or more components defined by the protocol and based on the message class with each of the one or more components relating to a corresponding set of attributes of the message, at least one of the one or more components of the structured header including information related to:

- a processing mode for the message, the processing mode having one of a multiple of values indicative of whether a reply responsive to the application message is to be transmitted to the sending application upon processing of the application message by the receiving application,

- a modifiable hop-list to record the identity of the intermediate components through which the application message passes en route to the receiving application, and security for components of the message; and

send the message from the sending application according to the protocol, the message being received at the receiving application; and

wherein the message class having one of multiple possible values including: a first value representative of an application-message class associated with application messages that cause specified operations to be performed at the receiving application, a second value representative of an application-response class associated with messages responsive to the application messages of the application-message class, a third value representative of an application-error class associated with error messages indicative of errors occurring at the receiving application processing the application messages and a fourth value representative of a system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application.

18. (New) The system of claim 17, wherein the computer instructions stored on the at least one storage device further cause, when executed, the at least one processor to:

define the message to include a message body, wherein the message body is defined in accordance with the protocol, the message body comprises at least one component from a second set of components defined by the protocol, and the protocol defines the second set of components to comprise:

a fault message component representing an error occurring at a messaging peer that generated the error.

19. (New) The system of claim 18, wherein the fault message is defined to represent at least one error from a set of errors and the protocol defines the set of errors to comprise:

errors processing a message;  
errors parsing a message; and  
errors rendering a message.

20. (New) The system of claim 17, wherein the security for components of the message is defined to comprise:

information related to a signature of the message; and  
information related to a signature of a payload of the message, if the message includes the payload.

21. (New) The system of claim 17, wherein the structured application message header is specified in a designated header section of a Simple Object Access Protocol (SOAP) message.

22. (New) The system of claim 17, wherein the application-response class associated with messages responsive to the application messages of the application-message class is associated with messages comprising return values responsive to respective computations performed by the receiving application in response to requests in the application messages received from the sending application.

23. (New) A computer program product residing on at least one computer readable storage device and comprising computer instructions that when executed on at least one processor-based device cause the at least one processor-based device to:

define an application message having a structured application message header, the structured message header being defined in accordance with a message class of the application message determinative of content and configuration of the message header and in accordance with a messaging protocol of a business application of a collaborative business enterprise, the structured message header comprising one or more components defined by the protocol and based on the message class with each of the one or more components relating to a corresponding set of attributes of the message, at least one of the one or more components of the structured header including information related to:

a processing mode for the message, the processing mode having one of a multiple of values indicative of whether a reply responsive to the application message is to be transmitted to the sending application upon processing of the application message by the receiving application,

a modifiable hop-list to record the identity of the intermediate components through which the application message passes en route to the receiving application, and security for components of the message; and

send the message from the sending application according to the protocol, the message being received at the receiving application; and

wherein the message class having one of multiple possible values including: a first value representative of an application-message class associated with application messages that cause specified operations to be performed at the receiving application, a second value representative of an application-response class associated with messages responsive to the application messages of the application-message class, a third value representative of an application-error class associated with error messages indicative of errors occurring at the receiving application processing the application messages and a fourth value representative of a system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application.

24. (New) The computer program product of claim 23, further comprising instruction that, when executed, further cause the at least one processor to:

define the message to include a message body, wherein the message body is defined in accordance with the protocol, the message body comprises at least one component from a second set of components defined by the protocol, and the protocol defines the second set of components to comprise:

a fault message component representing an error occurring at a messaging peer that generated the error.

25. (New) The computer program product of claim 24, wherein the fault message is defined to represent at least one error from a set of errors and the protocol defines the set of errors to comprise:

errors processing a message;  
errors parsing a message; and  
errors rendering a message.

26. (New) The computer program product of claim 23, wherein the security for components of the message is defined to comprise:

information related to a signature of the message; and  
information related to a signature of a payload of the message, if the message includes the payload.

27. (New) The computer program product of claim 23, wherein the structured application message header is specified in a designated header section of a Simple Object Access Protocol (SOAP) message.

28. (New) The computer program product of claim 23, wherein the application-response class associated with messages responsive to the application messages of the application-message class is associated with messages comprising return values responsive to respective computations performed by the receiving application in response to requests in the application messages received from the sending application.